

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|-------------------------|--------------------|--------------------------|---------------------|------------------|--|
| 10/750,328 | 12/31/2003 | Mark E. Gardiner | 59082US002 | 4686 | |
| 32692 | 7590 09/28/2005 | | EXAM | EXAMINER | |
| 3M INNOV | ATIVE PROPERTIES C | KIM, EI | KIM, ELLEN E | | |
| PO BOX 33 | | | A DOLLA WEE | DARED MILABED | |
| ST. PAUL, MN 55133-3427 | | | ART UNIT | PAPER NUMBER | |
| | | | 2874 | | |
| | | DATE MAIL ED: 09/28/2005 | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|--|--|--|--|--|--|--|
| · | 10/750,328 | GARDINER, MARK E. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Ellen Kim | 2874 | | | | |
| The MAILING DATE of this communication app | pears on the cover sheet with the c | orrespondence address | | | | |
| Period for Reply | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPL' WHICHEVER IS LONGER, FROM THE MAILING D. - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be timwill apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE | I. ely filed the mailing date of this communication. D (35 U.S.C. § 133). | | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed on | | | | | | |
| | —· s action is non-final. | | | | | |
| · <u> </u> | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | • | | | | |
| 4) Claim(s) 1-22 is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>1-22</u> is/are rejected. | _ | | | | | |
| <u> </u> | | | | | | |
| 8) Claim(s) are subject to restriction and/o | r election requirement. | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Examiner. | | | | | | |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | |
| 11) The oath or declaration is objected to by the Ex | caminer. Note the attached Office | Action or form PTO-152. | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document application from the International Bureau * See the attached detailed Office action for a list | s have been received. s have been received in Application rity documents have been receive u (PCT Rule 17.2(a)). | on No d in this National Stage | | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5/05. | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other: | (PTO-413) ite atent Application (PTO-152) | | | | |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first major axis intersecting the second major axis at an angle as claimed in claim 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Application/Control Number: 10/750,328

Art Unit: 2874

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 9, 11-21, and 22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Benson et al [USPAT 5,696,627].

Benson et al disclose a light directing film comprising:

A first surface;

A structured surface opposite the first surface, the structured surface having an array of prism elements, the array of prism elements further comprising:

first prism elements having blunt tips [fig. 34]; and second prism elements having sharp tips.

In re claims 2, 11, and 21, Benson et al show the flat blunt tips in fig. 34.

In re claims 3, 12, and 22, Benson et al teach the prior art show the rounded blunt tip in fig. 6.

In re claims 4 and 13, Benson et al show in fig. 6 that the first prisms comprise no more than about 50% of the array.

Art Unit: 2874

In re claims 5 and 14, Benson et al show in fig. 14 that at least one second prism element interleaved between a pair of first prism elements.

In re claims 6 and 15, Benson et al show in fig. 13D that the width of the blunt tip is from greater than 0% to less than about 40% of a width of a base of the first prism element.

In re claims 9, 16-17, and 18, Benson et al clearly show in the front drawing that the first and second prism elements can be interleaved each other.

In re claim 18, Benson et al show in fig. 13 that the two major axes are intersecting at an angle.

In re claim 19, it is clear the light source has to be there in order to operate the device, and the Benson et al device inherently functions a viewing screen.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a wholè would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson et al.

Benson et al disclose every aspect of claimed invention except for the width of the blunt tip measuring from about 1 µm to about 20 µm, and the second distance measuring about 2µm to about 5 µm less than the first distance.

Benson et al clearly teach at column 18, lines 21-23 that various modification is possible.

It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify Benson et al device to have the claimed width of the blunt tip and the claimed second distance as need be.

Conclusion

In formation regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

For all official patent application related correspondence for organizations reporting to the Commissioner of Patents:

- Correspondence that is transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Further references of interest are cited on Form PLO-892, which is attachment to this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen Kim whose telephone number is (571) 272-2349. The examiner can normally be reached on Monday through Thursday.

Ellen E. Kim

Primary Examiner

September 23, 2005/EK